



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,226	01/04/2000	GEORGE HSU	P413	8873

24739 7590 12/24/2003

CENTRAL COAST PATENT AGENCY
PO BOX 187
AROMAS, CA 95004

EXAMINER

DINH, DUNG C

ART UNIT	PAPER NUMBER
----------	--------------

2153

DATE MAILED: 12/24/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary

Application No.

09/477,226

Applicant(s)

HSU, GEORGE

Examiner

Dung Dinh

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 2153

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/7/03 have been fully considered but they are deemed moot in view of new ground of rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, and 13-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al. (US 6,112,246) in view of Brown et al. (US 6,480,896) and Sandelman et al. (US 6,160,477).

As set forth in claim 1, Horbal discloses a control unit for monitoring conditions at and controlling functions of an appliance in response to a step sequence received from a remote server, comprising: a microcontroller for managing functions of the control unit (see fig. 2, the microserver); an input-output

Art Unit: 2153

(I/O) section coupled to the microcontroller for interfacing voltage levels between elements of the appliance and the microcontroller; see col. 8, lines 26-39, and element 406; a system memory for storing the step sequence; a wiring interface for connecting input and output points from the control unit to the system or appliances, see col. 3 lines 34-37; see col. 5, lines 50-59; with connections made between the wiring interface and the controlled appliance. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction; also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

Horbal does not specifically disclose the microcontroller stored step sequence received from the remote server and generates outputs to operate functions of the appliance according to the stored step sequence. In similar field of invention, Brown teaches motion data (step sequence) is receive

Art Unit: 2153

from a host machine over a network and stored in a controller such that the controller can generate signals for directly operate a target device [see col.1 lines 20-42, col.4 lines 23-29, col.11 lines 39-52, col.13 lines 49-62]. Hence, it would have been obvious for one of ordinary skill in the art to combine the teaching of Brown with Horbal to download and store step sequence (motion data) in the controller because it would have enable thy system to efficiently upgrade/change the operation of the target device. It is apparent the microserver of Horbal's system as modified would operate to generate output signals to control the appliance connected to it according to the stored motion data.

As set forth in claims 1 and 4, Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 1 and 4. Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 93 1, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The, rationale is as follows: It would have been

Art Unit: 2153

desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 2, Horbal discloses a control unit wherein the microcontroller produces control outputs partly in response to input from sensors on the controlled system or appliance; see figs. 3, the temperature sensor.

As set forth in claim 3, Horbal discloses a control unit further comprising additional sensors in the control unit, wherein the microcontroller produces control outputs partly in response to input from the additional sensors; see col. 8, lines 32-39.

As set forth in claim 5, Horbal discloses a method for controlling an appliance, comprising steps of. (a) connecting a control unit to elements of the appliance by a wiring interface, the control unit comprising a microcontroller for managing functions of the control unit, an inputoutput (I/O) section coupled to the microcontroller for interfacing voltage levels between elements of the appliance and the microcontroller, a

Art Unit: 2153

system memory for storing a step sequence, a wiring interface for connecting the elements of the appliance to the control unit; and (c) operating the appliance according to the step sequence received; see col.8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2- col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

Horbal does not specifically disclose the microcontroller stored step sequence received from the remote server and generates outputs to operate functions of the appliance according to the stored step sequence. In similar field of invention, Brown teaches motion data (step sequence) is receive from a host machine over a network and stored in a controller such that the controller can generate signals for directly operate a target device [see col.1 lines 20-42, col.4 lines 23-

Art Unit: 2153

29, col.11 lines 39-52, col.13 lines 49-62]. Hence, it would have been obvious for one of ordinary skill in the art to combine the teaching of Brown with Horbal to download and store step sequence (motion data) in the controller because it would have enable thy system to efficiently upgrade/change the operation of the target device. It is apparent the microserver of Horbal's system as modified would operate to generate output signals to control the appliance connected to it according to the stored motion data.

As set forth in claims 5 and 8, Horbal does not discloses a system wherein there is an RF section cornmunicating with the microcontroller and memory for receiving programs and data. As set forth in claims 5 and 8, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 93 1, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending infonation to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would

Art Unit: 2153

have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 6, Horbal discloses a method wherein in step (c) the microcontroller produces control outputs partly in response to input from sensors on the controlled system or appliance; see col. 8, lines 32-39, and fig. 3.

As set forth in claim 7, Horbal discloses a method further comprising additional sensors in the control unit, and wherein, in step (c) the microcontroller produces control outputs partly in response to input from the additional sensors; see col. 8, lines 32-39, and fig. 3.

As set forth in claim 9, Horbal discloses a base station for managing one or more control units in a home or business control system, the control units connected to individual ones of appliances in the home or business, comprising: a microcontroller for managing functions of the base station; memory coupled to the microcontroller for storing one or more step sequences to be performed by one or more of the control units; a communication port for communicating with the Internet; characterized in that the one or more step sequences via the

Art Unit: 2153

communication port, and transmits individual ones of the step sequences to appropriate control units; see col. 8, lines 2639, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. I and 2.

Horbal does not specifically disclose the microcontroller stored step sequence received from the remote server and generates outputs to operate functions of the appliance according to the stored step sequence. In similar field of invention, Brown teaches motion data (step sequence) is recieved from a host machine over a network and stored in a controller such that the controller can generate signals for directly operate a target device [see col.1 lines 20-42, col.4 lines 23-29, col.11 lines 39-52, col.13 lines 49-62]. Hence, it would

Art Unit: 2153

have been obvious for one of ordinary skill in the art to combine the teaching of Brown with Horbal to download and store step sequence (motion data) in the controller because it would have enable thy system to efficiently upgrade/change the operation of the target device. It is apparent the microserver of Horbal's system as modified would operate to generate output signals to control the appliance connected to it according to the stored motion data.

As set forth in claims 9, 11, and 13, Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 9, 11, and 13, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would

Art Unit: 2153

have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 10, Horbal discloses a base station wherein the communication port is one of a standard serial or parallel communication port compatible with a personal computer (PC) and wherein the PC handles communication with the Internet for receiving step sequences, and transfers the step sequences to the base station; see figs. 2-5.

As set forth in claim 12, Horbal does not explicitly disclose having a base station enabled to identify and communicate with up to 256 control units selectively. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the of system of Horbal, with the ability to communicate with up to 256 control units. The rationale is as follows: It would have been desirable have the ability to communicate with multiple units. One of ordinary skill would have been motivated by the need to control multiple objects to have provided multiple control units to the system of Horbal thereby having provided the ability to monitor multiple systems.

Art Unit: 2153

As set forth in claim 14, Horbal discloses a method for managing functions for a plurality of appliances in a home or business, the appliances connected to control units: (a) identifying each control unit uniquely electronically; (c) downloading control individual step sequence from an Internet site by the base station identified for individual ones of the control units, and transmitting the downloaded step sequences selectively to the individual ones of the control units; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

Horbal does not specifically disclose the microcontroller stored step sequence received from the remote server and generates outputs to operate functions of the appliance

Art Unit: 2153

according to the stored step sequence. In similar field of invention, Brown teaches motion data (step sequence) is received from a host machine over a network and stored in a controller such that the controller can generate signals for directly operate a target device [see col.1 lines 20-42, col.4 lines 23-29, col.11 lines 39-52, col.13 lines 49-62]. Hence, it would have been obvious for one of ordinary skill in the art to combine the teaching of Brown with Horbal to download and store step sequence (motion data) in the controller because it would have enable thy system to efficiently upgrade/change the operation of the target device. It is apparent the microserver of Horbal's system as modified would operate to generate output signals to control the appliance connected to it according to the stored motion data.

As set forth in claims 14 and 15, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 14 and 15, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the

Art Unit: 2153

microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 16, Horbal discloses; a method wherein the communication port is one of a standard serial or parallel communication port compatible with a personal computer (PC) and wherein a connected PC handles communication with the Internet for receiving the step sequences, and transfers the step sequences to the base station; see figs. 2-5.

As set forth in claim 17, Horbal discloses a control system for systems and appliances in a home or business area, comprising: a plurality of control units, individual ones of the units wired to sensors and actuators of individual ones of the appliances, the control units having each a microcontroller, a system memory, an I/O section; and an Internet site executing software enabling a subscriber associated with the home or

Art Unit: 2153

business area to interact with the base station; characterized in that the Internet site software provides an interface for their subscriber to review status of svstems and appliances having connected control units in the associated home or business, and to author step sequences addressed for individual ones of the control units in the home or business; see col. 8, lines 26-319, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. I and 2.

Horbal does not specifically disclose a stored downloaded step sequences to the microcontroller and the microcontroller generates outputs to operate functions of the appliance according to the stored step sequence. In similar field of invention, Brown teaches motion data (step sequence) is recieve

Art Unit: 2153

from a host machine over a network and stored in a controller such that the controller can generate signals for directly operate a target device [see col.1 lines 20-42, col.4 lines 23-29, col.11 lines 39-52, col.13 lines 49-62]. Hence, it would have been obvious for one of ordinary skill in the art to combine the teaching of Brown with Horbal to download and store step sequence (motion data) in the controller because it would have enable thy system to efficiently upgrade/change the operation of the target device. It is apparent the microserver of Horbal's system as modified would operate to generate output signals to control the appliance connected to it according to the stored motion data.

As set forth in claims 17, 22, and 23, Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claim 17, 22, and 23, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 4757, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been

Art Unit: 2153

desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 18, Horbal discloses a control system wherein the base station comprises an Internet browser and an Internet-capable port for Internet access; see fig. 2.

As set forth in claim 19, Horbal discloses a control system wherein the base station has a standard serial or parallel port for connection to a personal computer, and the personal computer accomplishes necessary Internet browsing functions; see fig. 6-12.

As set forth in claim 20, Horbal discloses a control system wherein each control unit is configured to the base station by a specific address; see fig. 2, each appliance.

As set forth in claim 21, Horbal discloses a control system wherein the subscriber has a specific web page on the Internet site, wherein all configured, installed and active control units in the home or business area with which the subscriber is associated are indicated; see figs. 6-12.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (703) 305-9655. The examiner can normally be reached on Monday-Thursday from 7:00 AM - 4:30 PM. The examiner can also be reached on alternate Friday.

Art Unit: 2153

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (703) 305-4792.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington. VA, Fourth Floor (Receptionist).



Dung Dinh
Primary Examiner
December 16, 2003